

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A plant for concentration of tomato juice, ~~wherein it comprises~~ said plant comprising:

_____ an evaporator ~~(1)~~ ~~of known type~~, provided with an external sleeve ~~(2)~~, in which a heating fluid circulates, and which surrounds a vertical tube bundle ~~(3)~~,

said vertical tube bundle arranged in a central part ~~(1a)~~ of the evaporator ~~(1)~~, and comprising in which tubes (3) tubes in which the tomato juice circulates, the tubes ~~(3)~~ being divided into a plurality of sectors ~~(3a, 3b, 3c and 3d)~~ all operating at a same temperature and pressure and in which the tomato juice circulates in succession;

_____ an upper plate ~~(4)~~ and a lower plate ~~(5)~~, which, together with the sleeve ~~(2)~~, delimit the central part ~~(1a)~~, on which the upper plate ~~(4)~~ and the lower plate ~~(5)~~ ends of the tubes ~~(3)~~ are keyed ~~in order so~~ that the upper ends of the tubes open into an inlet zone ~~(4a)~~ of the evaporator in which the tomato juice is distributed ~~(1)~~, and the lower ends of the tubes ~~(3)~~ open into a bottom zone which is a separation chamber ~~(5a)~~ of the evaporator ~~(1)~~;

~~means for circulating (6a, 6b, 6c) of known type,~~
circulating members for removing the tomato juice from ~~a one of~~
said plurality of sectors ~~sector~~ of the separating chamber (5a)
and sending the tomato juice to an inlet zone of a successive
~~sector~~ one of said plurality of sectors;

 at least one heat exchanger ~~(7) of known type~~ arranged
externally of the evaporator (1) and divided into a plurality of
sectors ~~(7a, 7b, 7c) in each said sector of which sectors~~ the
tomato juice exiting from ~~a the~~ sector of tubes (3a, 3b, 3c) of
the evaporator (1) is heated to a same temperature as a
temperature present in the central part (1a) of the evaporator
(1), before being sent on to a successive sector.

2. (currently amended) The plant of claim 1, wherein ~~it~~
said plant further comprises:

 a compressor ~~(8) of known type~~ for aspirating steam from
the separation chamber (5a) of the evaporator (1), and for
compressing the steam and for introducing the steam into the
central part (1a) of the evaporator ~~(1);~~

 a gas turbine ~~(9) of known type~~, powered by live steam
coming from a boiler (10) and powering the compressor ~~(8);~~

 wherein discharge steam from the gas turbine ~~(9)~~
~~constituting~~ constitutes a heating fluid necessary for operation
of the plant.

3. (currently amended) The plant of claim 2, wherein ~~it~~
said plant further comprises:

 a steam ejector ~~(11)~~ of known type,
 a primary fluid ~~of which is~~ comprising the discharge steam
coming from the gas turbine ~~(9)~~,
 ~~which~~ wherein the steam ejector ~~(11)~~ extracts heating
fluid from the central part ~~(1a)~~ of the evaporator ~~(1)~~, wherein
fluid exiting from the steam ejector ~~(11)~~ ~~constituting~~ constitutes
the heating fluid for the heat exchanger ~~(7)~~.

4. (currently amended) The plant of claim 1, wherein: a
temperature internal of the central zone ~~(1a)~~ of the evaporator
is ~~comprised~~ between 72° and 80°C; a temperature internal of the
separation chamber ~~(5a)~~ of the evaporator ~~(1)~~ is ~~comprised~~
between 67° and 75°C.